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**United States Patent** [19]**Carter**[11] **Patent Number:** **5,452,266**[45] **Date of Patent:** **Sep. 19, 1995**[54] **SUBMERSIBLE SENSOR SYSTEM**[75] **Inventor:** **G. Clifford Carter, Waterford, Conn.**[73] **Assignee:** **The United States of America as represented by the Secretary of the Navy, Washington, D.C.**[21] **Appl. No.:** **308,336**[22] **Filed:** **Sep. 19, 1994**[51] **Int. Cl.<sup>6</sup>** ..... **H04R 1/00**[52] **U.S. Cl.** ..... **367/153; 367/173**[58] **Field of Search** ..... **367/165, 173, 4, 153, 367/106, 130**[56] **References Cited****U.S. PATENT DOCUMENTS**

4,272,835 6/1981 Flood et al. .... 367/165

**Primary Examiner—Daniel T. Pihulic****Attorney, Agent, or Firm—Michael J. McGowan; James M. Kasischke; Prithvi C. Lall**[57] **ABSTRACT**

A vessel, such as a submarine, has onboard sensor processing, display, and computer control capability for an array of sensors deployed from the vessel. The array includes a plurality of cables containing numerous sensors on each cable. The cables are suspended vertically from a housing on reels that provide a convenient means for deployment and recovery of the array. A submersible means at the lower end of the cables includes active transducers, propulsion devices and control surfaces for orienting and driving the structure so as to maintain a speed and direction for this structure corresponding to that of the vessel.

**11 Claims, 3 Drawing Sheets**